MATERIAL SAFETY DATA SHEET

Issued/Revised date: Jan-12-2011
Document No:WI-01112011001

1. Product and Company Identification

Product Identification :
Lithium-Ion Rechargeable Battery Pack
Detail in Appendix

Manufacturer :
Simplo Technology Co., Ltd.
No.471, Sec.2, Pa Teh Rd,. Hu Kou 303, Hsin Chu Hsien, Taiwan
Tel : +886-3-5695920 Fax : +886-3-5695931
Simplo Electronics (CHANGSHU) INC.
No.2 DongNan Avenue,ChangShu,JiangSu Province , China
TEL :+86-0512-52302255 FAX :+86- 0512-52302277

2. Hazards Identification

Primary routes of entry : Skin contact, Skin absorption; Eye contact, Inhalation and ingestion: No
Symptoms of exposure : Skin contact, No effect under routine handling and use.
Skin absorption : No effect under routine handling and use.
Eye contact : No effect under routine handling and use.
Inhalation : No effect under routine handling and use.
Reported as carcinogen : Not applicable

3. Composition / Identification on Ingredients

Substance : Lithium Ion Battery
CAS number : Not specified
UN Class : Even classified as lithium batteries, they are exempted from dangerous goods.
UN-Recommendations on the Transport of Dangerous Goods Model Regulations.

- Lithium ion cells and batteries may be offered for transport if they meet the following :
- For cells, the Watt-hour rating **should** not **be** more than 20 Wh;
- For batteries, the Watt-hour rating **should** not **be** more than 100 Wh. The Watt-hour rating must be marked on the outside of the battery case .
- Each cell or battery of the type proved to meet the requirements of each test in the UN manual of tests and criteria, Part III, subsection 38.3.
- General requirements and additional requirements, Please see **Section Ⅱ of Packing Instruction 965, 966, 967 accordingly** or UN 3480 , UN3481.

Composition :

3-1. Cases: Plastic	Not dangerous
3-2. Printed Circuit Board Assembly	Not dangerous
3-3. Lithium Ion Cell :	

Aluminum	2-10 %
Metal Oxide (proprietary)	20-50 %

Polyvinylidene Fluoride (PVDF)	<5 %
Copper	2-10 %
Carbon (proprietary)	10-30 %
Electrolyte (proprietary)	10-20 %

4. First Aid Measures

Inhalation : Make the victim blow his/her nose, gargle. Seek medical attention if necessary.
Skin contact : Remove contaminated clothes and shoes immediately. Wash extraneous matter or contact region with soap and plenty of water immediately.
Eye contact : Do not rub one's eyes. Immediately flush eyes with water continuously for at least 15 minutes. Seek medical attention immediately.
Ingestion : Make the victim vomit. When it is impossible or the feeling is not well after vomiting, seek medical attention.

5. Fire Fighting Measures

Extinguishing Media : Use suitable extinguishing media.
Firefighting Equipment : Use NIOSH/MSHA approved full-face self-contained breathing apparatus (SCBA) with full protective gear.

6. Accidental Release Measures

On Land : Place material into suitable containers and call local fire/police department.
In Water : If possible, Remove from water and call local fire/police department.

7. Handling and Storage

Handling :
Do not expose the battery to excessive physical shock or vibration. Short-circuiting should be avoided. However, accidental short-circuiting for a few seconds will not seriously affect the battery. Prolonged short circuits will cause the battery to rapidly lose energy, could generate enough heat to burn skin. Sources of short circuits include jumbled batteries in bulk containers, coins, metal jewelry, metal covered tables, or metal belts used for assembly of batteries in devices. To minimize risk of short-circuiting, the protective case supplied with the battery should be used to cover the terminals when transporting or storing the battery. Do not disassemble or deform the battery. Should an individual cell within a battery become ruptured, do not allow contact with water.
Storage :
The lithium ion battery should be between 25% and 75% of full charge when stored for a long period of time. Store in a cool, dry, well ventilated area. And temperature above 100 degree can result in loss of battery performance, leakage, or rust. Do not expose the battery to open flames.

8. Exposure Controls / Personal Protection

Engineering Controls : Keep away from heat and open flame. Store in a cool dry place
Personal Protection :
Respirator : Not required during normal operations. SCBA required in the event of a fire.
Eye/Face Protection : Not required beyond safety practices of employer.
Gloves : Not required for handling of battery.
Foot Protection : Steel toed shoes recommended for large container handling.

9. Physical and Chemical Properties

State	Solid
Odor	N/A
PH	N/A
Vapor pressure	N/A
Vapor density	N/A
Boiling point	N/A
Solubility in water	Insoluble
Specific gravity	N/A
Density	N/A

10. Stability and Reactivity

Reactivity : None
Incompatibilities : None during normal operation. Avoid exposure to heat, open flame, and corrosives.
Conditions to Avoid : Avoid exposure to heat and open flame. Do not puncture, crush or incinerate.

11. Toxicological Information

This product does not elicit toxicological properties during routine handling and use.

12. Ecological Information

Lithium ion battery pack can be disposable in accordance with appropriate federal, state and local regulations.

13. Disposal Consideration

Recommended methods for safe and environmentally preferred disposal:
Product(waste from residues)
Do not throw out a used battery cell. Recycle it through the recycling company.
Contaminated packaging
Neither a container nor packing is contaminated during normal use. When internal materials leaked from a battery cell contaminates, dispose as industrial wastes subject to special control.

14. Transport Information

The 52nd edition of International Air Transport Association (IATA) Dangerous Goods Regulations,
Comply with Section Ⅱ of Packing Instruction 965, 966, 967 accordingly for Lithium Ion battery.
Regulations specifically applicable to the product: Special Prevision A88, A99, A154 and A164, UN 3480 (Li-ion Batteries) and UN3481 (Li-ion Batteries with equipment)
US Department of Transportation (DOT) 49 code of Federal Regulations [USA]
The 2011-2012 edition of International Civil Aviation Organization (ICAO) Technical Instructions .
Transport Regulations for Sea Transport IMDG Code (2008 Edition) Class 9 exemptions .

15. Regulatory Information

Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.4)

OSHA Hazard communication standard (29 CFR 1910.1200)

__________Hazardous _____V_____Non-hazardous

16. Other Information

The information contained in this Safety data sheet is based on the present state of knowledge and current legislation.

This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

Chemical substances information: Japan Advanced Information center of Safety and Health
International Chemical Safety Cards (ICSCs):
International Occupational Safety and Health Information Centre (CIS)
1999 TLVs and BEIs: American Conference of Governmental Industrial Hygienists (ACGIH)
Wastes Disposal and Public Cleaning Law [Japan]
Law for Promotion of Effective Utilization of resources [Japan]
Production of MSDS proving UN Manual of Tests and Criteria, Part III, sub-section 38.3 is met.

No	Item	Result	Remark
1	Altitude simulation	PASS	
2	Thermal test	PASS	
3	Vibration	PASS	
4	Shock	PASS	
5	External short circuit	PASS	
6	Impact	PASS	
7	Overcharge	PASS	
8	Force discharge	N/A	For cell only

Appendix

Tooling	Battery	Cell source	SMP P/N	Model Name	acer P/N	Rating (Wh)
AS2009D	6cell2.2	SDI2.2F	934T4010H	AS09D75	BT.00607.080	46Wh
AS2009D	6cell 2.8	SDI2.8A	934T4070H	AS09D70	BT.00607.082	56Wh
AS2009D	6cell 2.8	SDI2.8A	934T2048H	AS09D70	BT.00607.108	56Wh
AS2009D	6cell2.2	SDI2.2F	934T2051F	AS09D75	BT.00607.110	46Wh
AS2009D	6cell2.2	SDI2.2F	934T2033F	AS09D75	BT.00607.098	46Wh
AS2009D	6cell 2.8	SDI2.8A	934T2034F	AS09D70	BT.00607.099	56Wh
UM2009G	3cell 2.2	Pana2.2CG	934T2064F	UM09G71	BT.00307.029	24Wh
UM2009G	3cell 2.2	SDI2.2F	934T2065F	UM09G75	BT.00307.030	24Wh
UM2009G	3cell 2.2	LGC2.2S3	934T2066F	UM09G73	BT.00307.031	24Wh
UM2009H	6cell 2.2	Pana2.2CG	934T2063F	UM09H71	BT.00607.115	48Wh
UM2009H	6cell 2.2	SDI2.2F	934T2062F	UM09H75	BT.00607.116	48Wh
UM2009H	6cell 2.2	LGC2.2S3	934T2068F	UM09H73	BT.00607.119	48Wh
UM2009H	6cell 2.8	SDI2.8A	934T2061F	UM09H70	BT.00607.117	63Wh
UM2009GW	3cell 2.2	SDI2.2F	934T2069F	UM09G75	BT.00307.032	24Wh
UM2009HW	6cell 2.2	Pana2.2CG	934T2071F	UM09H71	BT.00607.120	48Wh
UM2009HW	6cell 2.8	SDI2.8A	934T2072F	UM09H70	BT.00607.121	63Wh
AS2010A	6cell 3.0	SDI3.0A	934T2083F	AS10A7E	BT.00607.129	66Wh
AS2010F	9cell 3.0	SDI3.0A	934T2084F	AS10F7E	BT.00907.012	99Wh
AS2010B	6cell 2.2	Pana2.2CG	934T2073F	AS10B71	BT.00607.122	48Wh
AS2010B	6cell 2.2	LGC2.2S3	934T2075F	AS10B73	BT.00607.123	48Wh
AS2010B	6cell 2.2	SDI2.2F	934T2074F	AS10B75	BT.00607.124	48Wh
AS2010B	6cell 3.0	SDI3.0A	934T2076F	AS10B7E	BT.00607.128	66Wh
AS2010E	9cell 3.0	SDI3.0A	934T2085F	AS10E7E	BT.00907.013	99Wh
AS2010E	9cell 2.9	Pana2.9 NCR	934T2095F	AS10E76	BT.00907.015	94Wh
AS2010C	8cell 3.0	SDI3.0A	934T2086F	AS10C7E	BT.00807.028	88Wh
AS2010D	6cell 2.2	Pana2.2CG	934T2078F	AS10D71	BT.00607.125	48Wh
AS2010D	6cell 2.2	LGC2.2S3	934T2079F	AS10D73	BT.00607.126	48Wh
AS2010D	6cell 2.2	SDI2.2F	934T2081F	AS10D75	BT.00607.127	48Wh
AS2010D	6cell 3.0	SDI3.0A	934T2092F	AS10D7E	BT.00607.130	66Wh
AS2010H	6cell 2.2	SDI2.2F	934T2089F	AS10H75	BT.00607.132	48Wh
AS2010H	6cell 3.0	SDI3.0A	934T2091F	AS10H7E	BT.00607.133	66Wh
T10A	2cell 3260mAh	LGC Polymer	934TA001F	BAT-1010	BT.00207.001	24Wh
WT1	3cell 3260mAh	LGC Polymer	934TA005F	AP11B7H	BT.00307.034	36Wh